

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/656,894
Source: JFWO
Date Processed by STIC: 08/08/2005-

ENTERED



IFWO

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/656,894

DATE: 08/08/2005
TIME: 10:04:32

Input Set : D:\P-3558-US.txt
Output Set: N:\CRF4\08082005\J656894.raw

```

3 <110> APPLICANT: Whitt, Michael
5 <120> TITLE OF INVENTION: RECOMBINANT MUTANTS OF RHABDOVIRUS AND METHODS OF USE THEREOF
7 <130> FILE REFERENCE: P-3558-US
9 <140> CURRENT APPLICATION NUMBER: 10/656,894
10 <141> CURRENT FILING DATE: 2003-09-08
12 <160> NUMBER OF SEQ ID NOS: 23
14 <170> SOFTWARE: PatentIn version 3.1
16 <210> SEQ ID NO: 1
17 <211> LENGTH: 229
18 <212> TYPE: PRT
19 <213> ORGANISM: Vesicular stomatitis virus
21 <400> SEQUENCE: 1
23 Met Ser Ser Leu Lys Lys Ile Leu Gly Leu Lys Gly Lys Gly Lys Lys
24 1 5 10 15
27 Ser Lys Lys Leu Gly Ile Ala Pro Pro Pro Tyr Glu Glu Asp Thr Ser
28 20 25 30
31 Ala Glu Tyr Ala Pro Ser Ala Pro Ile Asp Lys Ser Tyr Phe Gly Val
32 35 40 45
35 Asp Glu Met Asp Thr Tyr Asp Pro Asn Gln Leu Arg Tyr Glu Lys Phe
36 50 55 60
39 Phe Phe Thr Val Lys Met Thr Val Arg Ser Asn Arg Pro Phe Arg Thr
40 65 70 75 80
43 Tyr Ser Asp Val Ala Ala Ala Val Ser His Trp Asp His Met Tyr Ile
44 85 90 95
47 Gly Met Ala Gly Lys Arg Pro Phe Tyr Lys Ile Leu Ala Phe Leu Gly
48 100 105 110
51 Ser Ser Asn Leu Lys Ala Thr Pro Ala Val Leu Ala Asp Gln Gly Gln
52 115 120 125
55 Pro Glu Tyr His Thr His Cys Glu Gly Arg Ala Tyr Leu Pro His Arg
56 130 135 140
59 Met Gly Lys Thr Pro Pro Met Leu Asn Val Pro Glu His Phe Arg Arg
60 145 150 155 160
63 Pro Phe Asn Ile Gly Leu Tyr Lys Gly Thr Ile Glu Leu Thr Met Thr
64 165 170 175
67 Ile Tyr Asp Asp Glu Ser Leu Glu Ala Ala Pro Met Ile Trp Asp His
68 180 185 190
71 Phe Asn Ser Ser Lys Phe Ser Asp Phe Arg Glu Lys Ala Leu Met Phe
72 195 200 205
75 Gly Leu Ile Val Glu Lys Lys Ala Ser Gly Ala Trp Val Leu Asp Ser
76 210 215 220
79 Ile Ser His Phe Lys
80 225
83 <210> SEQ ID NO: 2

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/656,894

DATE: 08/08/2005
TIME: 10:04:32

Input Set : D:\P-3558-US.txt
Output Set: N:\CRF4\08082005\J656894.raw

84 <211> LENGTH: 229
 85 <212> TYPE: PRT
 86 <213> ORGANISM: Vesicular stomatitis virus
 88 <400> SEQUENCE: 2
 90 Met Ser Ser Leu Lys Lys Ile Leu Gly Leu Lys Gly Lys Gly Lys Lys
 91 1 5 10 15
 94 Ser Lys Lys Leu Gly Ile Ala Pro Pro Pro Tyr Glu Glu Asp Thr Ser
 95 20 25 30
 98 Met Glu Tyr Ala Pro Ser Ala Pro Ile Asp Lys Ser Tyr Phe Gly Val
 99 35 40 45
 102 Asp Glu Ala Asp Thr Tyr Asp Pro Asn Gln Leu Arg Tyr Glu Lys Phe
 103 50 55 60
 106 Phe Phe Thr Val Lys Met Thr Val Arg Ser Asn Arg Pro Phe Arg Thr
 107 65 70 75 80
 110 Tyr Ser Asp Val Ala Ala Ala Val Ser His Trp Asp His Met Tyr Ile
 111 85 90 95
 114 Gly Met Ala Gly Lys Arg Pro Phe Tyr Lys Ile Leu Ala Phe Leu Gly
 115 100 105 110
 118 Ser Ser Asn Leu Lys Ala Thr Pro Ala Val Leu Ala Asp Gln Gly Gln
 119 115 120 125
 122 Pro Glu Tyr His Thr His Cys Glu Gly Arg Ala Tyr Leu Pro His Arg
 123 130 135 140
 126 Met Gly Lys Thr Pro Pro Met Leu Asn Val Pro Glu His Phe Arg Arg
 127 145 150 155 160
 130 Pro Phe Asn Ile Gly Leu Tyr Lys Gly Thr Ile Glu Leu Thr Met Thr
 131 165 170 175
 134 Ile Tyr Asp Asp Glu Ser Leu Glu Ala Ala Pro Met Ile Trp Asp His
 135 180 185 190
 138 Phe Asn Ser Ser Lys Phe Ser Asp Phe Arg Glu Lys Ala Leu Met Phe
 139 195 200 205
 142 Gly Leu Ile Val Glu Lys Lys Ala Ser Gly Ala Trp Val Leu Asp Ser
 143 210 215 220
 146 Ile Ser His Phe Lys
 147 225
 150 <210> SEQ ID NO: 3
 151 <211> LENGTH: 229
 152 <212> TYPE: PRT
 153 <213> ORGANISM: Vesicular stomatitis virus
 155 <400> SEQUENCE: 3
 157 Met Ser Ser Leu Lys Lys Ile Leu Gly Leu Lys Gly Lys Gly Lys Lys
 158 1 5 10 15
 161 Ser Lys Lys Leu Gly Ile Ala Pro Pro Pro Tyr Glu Glu Asp Thr Ser
 162 20 25 30
 165 Met Glu Tyr Ala Pro Ser Ala Pro Ile Asp Lys Ser Tyr Phe Gly Val
 166 35 40 45
 169 Asp Glu Met Asp Thr Tyr Asp Pro Asn Gln Leu Arg Tyr Glu Lys Phe
 170 50 55 60
 173 Phe Phe Thr Val Lys Met Thr Val Arg Ser Asn Arg Pro Phe Arg Thr
 174 65 70 75 80

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/656,894

DATE: 08/08/2005
TIME: 10:04:32

Input Set : D:\P-3558-US.txt
Output Set: N:\CRF4\08082005\J656894.raw

```

177 Tyr Ser Asp Val Ala Ala Ala Val Ser His Trp Asp His Met Tyr Ile
178          85           90           95
181 Gly Met Ala Gly Lys Arg Pro Phe Tyr Lys Ile Leu Ala Phe Leu Gly
182          100          105          110
185 Ser Ser Asn Leu Lys Ala Thr Pro Ala Val Leu Ala Asp Gln Gly Gln
186          115          120          125
189 Pro Glu Tyr His Ala His Cys Glu Gly Arg Ala Tyr Leu Pro His Arg
190          130          135          140
193 Met Gly Lys Thr Pro Pro Met Leu Asn Val Pro Glu His Phe Arg Arg
194 145          150          155          160
197 Pro Phe Asn Ile Gly Leu Tyr Lys Gly Thr Ile Glu Leu Thr Met Thr
198          165          170          175
201 Ile Tyr Asp Asp Glu Ser Leu Glu Ala Ala Pro Met Ile Trp Asp His
202          180          185          190
205 Phe Asn Ser Ser Lys Phe Ser Asp Phe Arg Glu Lys Ala Leu Met Phe
206          195          200          205
209 Gly Leu Ile Val Glu Lys Lys Ala Ser Gly Ala Trp Val Leu Asp Ser
210          210          215          220
213 Ile Ser His Phe Lys
214 225
217 <210> SEQ ID NO: 4
218 <211> LENGTH: 229
219 <212> TYPE: PRT
220 <213> ORGANISM: Vesicular stomatitis virus
222 <400> SEQUENCE: 4
224 Met Ser Ser Leu Lys Lys Ile Leu Gly Leu Lys Gly Lys Lys Lys
225 1          5           10          15
228 Ser Lys Lys Leu Gly Ile Ala Pro Pro Pro Tyr Glu Glu Asp Thr Ser
229          20          25           30
232 Met Glu Tyr Ala Pro Ser Ala Pro Ile Asp Lys Ser Tyr Phe Gly Val
233          35          40           45
236 Asp Glu Met Asp Thr Tyr Asp Pro Asn Gln Leu Arg Tyr Glu Lys Phe
237          50          55           60
240 Phe Phe Thr Val Lys Met Thr Val Arg Ser Asn Arg Pro Phe Arg Thr
241 65          70           75           80
244 Tyr Ser Asp Val Ala Ala Ala Val Ser His Trp Asp His Met Tyr Ile
245          85          90           95
248 Gly Met Ala Gly Lys Arg Pro Phe Tyr Lys Ile Leu Ala Phe Leu Gly
249          100          105          110
252 Ser Ser Asn Leu Lys Ala Thr Pro Ala Val Leu Ala Asp Gln Gly Gln
253          115          120          125
256 Pro Glu Tyr His Thr His Cys Glu Gly Arg Ala Tyr Leu Pro His Arg
257          130          135          140
260 Met Gly Lys Thr Pro Pro Met Leu Asn Val Pro Glu His Phe Arg Arg
261 145          150          155          160
264 Pro Phe Asn Ile Gly Leu Tyr Lys Gly Thr Ile Glu Leu Thr Met Thr
265          165          170          175
268 Ile Tyr Asp Asp Glu Ser Leu Glu Ala Ala Pro Met Ile Trp Asp His
269          180          185          190

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/656,894

DATE: 08/08/2005

TIME: 10:04:32

Input Set : D:\P-3558-US.txt
 Output Set: N:\CRF4\08082005\J656894.raw

272 Phe Asn Ser Ser Lys Phe Ser Asp Phe Arg Glu Lys Ala Leu Met Phe
 273 195 200 205
 276 Gly Leu Ile Val Glu Lys Lys Ala Ser Gly Ala Trp Val Leu Asp Ser
 277 210 215 220
 280 Ile Gly His Phe Lys
 281 225
 284 <210> SEQ ID NO: 5
 285 <211> LENGTH: 690
 286 <212> TYPE: DNA
 287 <213> ORGANISM: Vesicular stomatitis virus
 289 <400> SEQUENCE: 5
 290 atgagttcct taaagaagat tctcggtctg aaggggaaag gtaagaaaatc taagaaaatta 60
 292 gggatcgcac caccccccta tgaagaggac actagcgctg agtatgcgcc gagcgctcca 120
 294 attgacaaat cctattttgg agttgacgag gctgacacct atgatcccaa tcaattaaga 180
 296 tatgagaaat tcttccttac agtggaaatg acggtagat ctaatcgcc gttcagaaca 240
 298 tactcagatg tggcagccgc tgtatccccat tggatcaca tgtacatcg aatggcagg 300
 300 aaacgtccct tctacaaaat cttggcttt ttgggttctt ctaatctaaa ggcactcca 360
 302 gcggatttgg cagatcaagg tcaaccagag tatcacgctc actgcgaagg caggccttat 420
 304 ttgccacata ggatgggaa gaccctccc atgctcaatg taccagagca cttcagaaga 480
 306 ccattcaata taggtcttta caagggaacg attgagctca caatgaccat ctacgatgat 540
 308 gagtcactgg aagcagctcc tatgatctgg gatcattca attcttccaa atttctgat 600
 310 ttcagagaga aggcttaat gtttggctg attgtcgaga aaaaggcatc tggagcgtgg 660
 312 gtcctggact ctatcgccca cttcaaatga 690
 315 <210> SEQ ID NO: 6
 316 <211> LENGTH: 42
 317 <212> TYPE: PRT
 318 <213> ORGANISM: Vesicular stomatitis virus
 320 <400> SEQUENCE: 6
 322 Phe Glu His Pro His Ile Gln Asp Ala Ala Ser Gln Leu Pro Asp Asp
 323 1 5 10 15
 326 Glu Ser Leu Phe Phe Gly Asp Thr Gly Leu Ser Lys Asn Pro Ile Ala
 327 20 25 30
 330 Leu Val Glu Gly Trp Phe Ser Ser Trp Lys
 331 35 40
 334 <210> SEQ ID NO: 7
 335 <211> LENGTH: 42
 336 <212> TYPE: PRT
 337 <213> ORGANISM: Vesicular stomatitis virus
 339 <400> SEQUENCE: 7
 341 Phe Glu His Pro His Ile Gln Asp Ala Ala Ser Gln Leu Pro Asp Asp
 342 1 5 10 15
 345 Glu Ser Leu Phe Phe Gly Asp Thr Gly Leu Ser Lys Asn Pro Ile Glu
 346 20 25 30
 349 Leu Val Glu Asp Trp Phe Ser Ser Trp Lys
 350 35 40
 353 <210> SEQ ID NO: 8
 354 <211> LENGTH: 42
 355 <212> TYPE: PRT
 356 <213> ORGANISM: Vesicular stomatitis virus

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/656,894

DATE: 08/08/2005
TIME: 10:04:32

Input Set : D:\P-3558-US.txt
Output Set: N:\CRF4\08082005\J656894.raw

358 <400> SEQUENCE: 8
360 Phe Glu His Pro His Ile Gln Asp Ala Ala Ser Gln Leu Pro Asp Asp
361 1 5 10 15
364 Glu Ser Leu Phe Phe Gly Asp Thr Gly Leu Ser Lys Asn Pro Ile Glu
365 20 25 30
368 Leu Val Glu Gly Ala Phe Ser Ser Trp Lys
369 35 40
372 <210> SEQ ID NO: 9
373 <211> LENGTH: 42
374 <212> TYPE: PRT
375 <213> ORGANISM: Vesicular stomatitis virus
377 <400> SEQUENCE: 9
379 Phe Glu His Pro His Ile Gln Asp Ala Ala Ser Gln Leu Pro Asp Asp
380 1 5 10 15
383 Glu Ser Leu Phe Phe Gly Asp Thr Gly Leu Ser Lys Asn Pro Ile Glu
384 20 25 30
387 Leu Val Glu Gly Trp Ala Ser Ser Trp Lys
388 35 40
391 <210> SEQ ID NO: 10
392 <211> LENGTH: 42
393 <212> TYPE: PRT
394 <213> ORGANISM: Vesicular stomatitis virus
396 <400> SEQUENCE: 10
398 Phe Glu His Pro His Ile Gln Asp Ala Ala Ser Gln Leu Pro Asp Asp
399 1 5 10 15
402 Glu Ser Leu Phe Phe Gly Asp Thr Gly Leu Ser Lys Asn Pro Ile Glu
403 20 25 30
406 Leu Val Glu Gly Trp Phe Ser Ser Ala Lys
407 35 40
410 <210> SEQ ID NO: 11
411 <211> LENGTH: 42
412 <212> TYPE: PRT
413 <213> ORGANISM: Vesicular stomatitis virus
415 <400> SEQUENCE: 11
417 Phe Glu His Pro His Ile Gln Asp Ala Ala Ser Gln Leu Pro Asp Asp
418 1 5 10 15
421 Glu Ser Leu Phe Phe Gly Asp Thr Gly Leu Ser Lys Asn Pro Ile Glu
422 20 25 30
425 Leu Val Glu Gly Trp Phe Ser Ser Trp Lys
426 35 40
429 <210> SEQ ID NO: 12
430 <211> LENGTH: 42
431 <212> TYPE: PRT
432 <213> ORGANISM: Vesicular stomatitis virus
434 <400> SEQUENCE: 12
436 Phe Glu His Pro His Ile Gln Asp Ala Ala Ser Gln Leu Pro Asp Asp
437 1 5 10 15
440 Glu Ser Leu Phe Phe Gly Asp Thr Gly Leu Ser Lys Asn Pro Ile Glu
441 20 25 30

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/656,894

DATE: 08/08/2005

TIME: 10:04:33

Input Set : D:\P-3558-US.txt

Output Set: N:\CRF4\08082005\J656894.raw